

- (i) a nucleic acid comprising a nucleotide sequence from position 1 to 3684 of SEQ ID NO.1,
 - (ii) a nucleic acid comprising a nucleotide sequence corresponding to the nucleic acid of (i) within the scope of the degeneracy of the genetic code, and
 - (iii) a nucleic acid comprising a nucleotide sequence which hybridizes with at least one of the nucleic acids of (i) or (ii) under stringent conditions;
 - (b) culturing the host cell under conditions which induce expression of the nucleic acid and production of the corresponding protein, and
 - (c) isolating the protein from the host cell.
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5. (Twice Amended) The process as claimed in claim 4, wherein the at least one insertion are selected from the group consisting of nucleotide sequences encoding cysteine residues, regions with several charged amino acids or tyrosine residues, DNA-binding epitopes, metal-binding epitopes, immunogenic epitopes, allergenic epitopes, antigenic epitopes, streptavidin, enzymes, cytokines, and antibody-binding proteins.

6. (Twice Amended) The process as claimed in claim 5, wherein the at least one insertion encode streptavidin.

7. (Twice Amended) The process as claimed in claim 5, wherein the at least one insertion encode immunogenic epitopes from a herpes virus.

8. (Twice Amended) The process as claimed in claim 5, wherein the at least one insertion encode enzymes comprising polyhydroxybutyric acid synthase or bacterial luciferase.

9. (Twice Amended) The process as claimed in claim 5, wherein the at least one insertion encode cytokines comprising interleukins, interferons or tumour necrosis factors.

10. (Twice Amended) The process as claimed in claim 5, wherein the at least one insertion encode antibody-binding proteins comprising protein A or protein G.

11. (Twice Amended) The process as claimed in claim 5, wherein the at least one insertion encode antigenic epitopes which bind cytokines or endotoxins.

12. (Twice Amended) The process as claimed in claim 5, wherein the at least one insertion encode metal-binding epitopes.

Please add the following new claim, claim 66, as follows:

-- 66. A process for production of an S-layer protein comprising

a) transforming a gram-negative prokaryotic host cell with a nucleic acid encoding an S-layer protein which comprises at least one insertion encoding peptide or polypeptide sequences and selected from the group consisting of

(i) a nucleic acid comprising a nucleotide sequence from position 1 to 3684 of SEQ ID NO.1,